

RECENT CHEMISTRY OF THE OXYGEN FLUORIDES

I. J. Solomon, A. J. Kacmarek, J. K. Raney, J. N. Keith

IIT Research Institute, Chicago, Illinois

Some of the recent chemistry of the oxygen fluorides will be discussed. The reaction of OF_2 and SO_3 has been studied by using O^{17} labeled starting materials and O^{17} NMR spectroscopy, and evidence for an OF transfer mechanism is presented. Similar experiments with O^{17} labeled SO_2 and O_2F_2 have shown that the reactions of O_2F_2 can be explained in terms of an OOF transfer. The generality of this reaction is shown in that $\text{CF}_3\text{CF(OOF)CF}_3$ and $\text{CF}_3\text{CF}_2\text{CF}_2\text{OOF}$ are formed by the reaction of O_2F_2 and $\text{CF}_3\text{CF=CF}_2$.